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Paul H. Edwards

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EXAMINER

GREENHUT, CHARLES N

ART UNIT

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3652

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/753,202	Applicant(s) EDWARDS ET AL.	
	Examiner CHARLES N. GREENHUT	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-31, 33-35 and 37-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-31, 33-35, 37-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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I. Claim Objections

1. Claims 37-39 are objected to as depending from a cancelled claim.

II. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim(s) 1-2, 9-11, 13-15, 20-24, 37-39, and 45-46 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over COHN (US 6,010,298 A) in view of REDDING (US 5,160,236 A) and further in view of BECK (US 20010038787 A1).

1.1. With respect to claim 1, 9-11, 13-15 and 20, COHN discloses a frame (24) a ramp platform (28), carriage (at 62) moveable with respect to the frame (24), guide shafts (46), linear bearings (88) connected to pivot arms (84) coupled to platform (28) a motor (72) coupled to the frame (via e.g., 62/54), a drive shaft (74), drive pulley (76), belt (80), release assembly configured to disconnected and connect the drive pulley from the motor (Col 13 Li. 56-59) a member extending orthogonally between the pivot arms (28), torsion bar (82), torsion spring (301), bar (46) extending between the torsion bar and the end of the ramp providing a downward force against the end of the ramp (via 50), the carriage having a profile approximately equal to that of the ramp (Fig. 9). COHN fails to disclose a manual control cable for moving the ramp carriage assembly. It is well-known in the art to provide a hand-crank, which is known to comprise a control cable, handle, pulley, shaft and one-way (ratcheting) bearing, for

manually actuating a vehicle ramp as discussed in REDDING (Col. 4 Li. 26-40). It would have been obvious to one having ordinary skill in the art to modify COHN with the hand crank having a control cable of REDDING in order to facilitate actuation of the ramp in the event of a power failure. The bearings of COHN are stationary and the race is moved thereover. It is well-known in the art that linear bearings may instead translate over a stationary race, as demonstrated, for example, by BECK which teaches linear bearings (54) block (52) translating on shafts (56). Such arrangement is the result of choosing from a finite number of identified predictable solutions with a reasonable expectation of success and therefore would have been obvious to one having ordinary skill in the art. The location of the control cable connection to a bearing block connected to the ramp is a detail of construction that results from choosing from a finite number of identified predictable solutions with a reasonable expectation of success and therefore would have been obvious to one having ordinary skill in the art.

1.2. With respect to claim(s) 2, COHN does not provide details of the mechanism employed to release the drive pulley from the motor. COHN does, however, disclose employing a release cable (464) and actuator (402) to release the belt. It would have been obvious to one having ordinary skill in the art to employ the same components to release the pulley from the motor.

1.3. With respect to claim 21, COHN discloses moving a platform (28), with carriage (26), powered by motor (72), having drive shaft (74), rotating a drive pulley (76), having belt (80) in communication with pulley (76) and carriage (26), and a release

assembly (Col 13 Li. 56-59), via a release actuator (coupling or clutch), disconnecting the drive pulley (76) from the motor (72), and manually deploying the ramp (Col. 14 Li. 23-24). COHN fails to disclose a using a control cable for deploying the ramp. It is well-known in the art to provide a hand-crank, which is known to comprise a control cable, for manually actuating a vehicle ramp as discussed in REDDING (Col. 4 Li. 26-40). It would have been obvious to one having ordinary skill in the art to modify COHN with the hand crank having a control cable of REDDING in order to facilitate actuation of the ramp in the event of a power failure. The bearings of COHN are stationary and the race is moved thereover. It is well-known in the art that linear bearings may instead translate over a stationary race, as demonstrated, for example, by BECK which teaches linear bearings (54) translating on shafts (56). Such arrangement is the result of choosing from a finite number of identified predictable solutions with a reasonable expectation of success and therefore would have been obvious to one having ordinary skill in the art.

1.4. With respect to claim(s) 22-24, COHN does not provide details of the mechanism employed to release the drive pulley from the motor. COHN does, however, disclose employing a release cable (464) and pivoting (about 456) actuator (438) to release the belt. It would have been obvious to one having ordinary skill in the art to employ the same or similar components to release the pulley from the motor.

1.5. With respect to claim 37-39, COHN additionally discloses providing pivot arms (84), linear bearings (88), and guide shafts (46)/(54), a member extending orthogonally

between the pivot arms (28) and a torsion bar (82), torsion spring (301), providing a downward force against the end of the ramp (via 50).

- 1.6. With respect to claim(s) 45-46, the limitation of having the belt engaged with the pulley while the motor is disengaged with the pulley is met depending upon the order of actuation of the respective release mechanisms. With respect to the apparatus claim, 45, since the COHN structure is capable of such a configuration, it meets the claim limitation. With respect to the method claim 46, since no specific order of release is specified or required and the same results are achieved, this amounts to substitution of equivalent steps to yield the same predictable results. Such substitution would have been obvious to one having ordinary skill in the art.
2. Claim(s) 3-8, 25-29, 30-31, 33-35 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over COHN in view of REDDING and further in view of HUNTER (US 1,024,580 A).

- 2.1. With respect to claim(s) 3-7, HUNTER teaches translating a sliding collar (16) along a drive shaft (4), a pin (10) engaging and disengaging the drive pulley (2), the release actuator (18) having a first end pivotable about a point, the second end connected with the sliding collar (16), keyed collar (5) defining an opening (8) for pin (10) and stop collar (unlabeled adjacent collar 2). *Note:* HUNTER teaches female member (2) being either the driving or driven member and of any suitable power transmission means. Connecting the release cable and release actuator of COHN to the release mechanism of HUNTER constitutes simple substitution of one known element for another in order to achieve the predictable result of selectively decoupling the drive source, and therefore would have been obvious to one having ordinary skill in the art.

2.2. With respect to claim(s) 8, and 30-31 providing a stop means and spring is known in the art, as demonstrated, for example, by COHN which teaches a stop means (462) connected to spring (460). Using a spring and stop means constitutes use of a known technique to improve a known device in order to obtain the predictable result of biasing the release mechanism to a particular position and therefore would have been obvious to one having ordinary skill in the art. Embodying the stop means (462) as a collar instead of a bracket is influenced by the structure of the clutch mechanism employed, and is essentially the result of choosing from a finite number of identified predictable solutions with a reasonable expectation of success and therefore would have been obvious to one having ordinary skill in the art.

2.3. With respect to claim 25-29, 33-35 COHN discloses moving a platform (28), with carriage (26), powered by motor (72), having drive shaft (74), rotating a drive pulley (76), having belt (80) in communication with pulley (76) and carriage (26), and a release assembly (Col 13 Li. 56-59), via a release actuator (coupling or clutch), disconnecting the drive pulley (76) from the motor (72), and manually deploying the ramp (Col. 14 Li. 23-24). COHN fails to disclose a using a control cable for deploying the ramp. It is well-known in the art to provide a hand-crank, which is known to comprise a control cable, handle, pulley, shaft and one-way (ratcheting) bearing, for manually actuating a vehicle ramp as discussed in REDDING (Col. 4 Li. 26-40). It would have been obvious to one having ordinary skill in the art to modify COHN with the hand crank having a control cable of REDDING in order to facilitate actuation of the ramp in the event of a power failure. HUNTER teaches translating a

sliding collar (16) along a drive shaft (4), a pin (10) engaging and disengaging the drive pulley (2), the release actuator (18) having a first end pivotable about an point, the second end connected with the sliding collar (16), keyed collar (5) defining an opening (8) for pin (10) and stop collar (unlabeled adjacent collar 2). *Note:* HUNTER teaches female member (2) being either the driving or driven member and of any suitable power transmission means. Connecting the release cable and release actuator of COHN to the release mechanism of HUNTER constitutes simple substitution of one known element for another in order to achieve the predictable result of selectively decoupling the drive source, and therefore would have been obvious to one having ordinary skill in the art.

2.4. With respect to claim 26, COHN fails to teach a pin engaging and disengaging the drive pulley. HUNTER teaches. *Note:* HUNTER teaches female member (2) being either the driving or driven member and of any suitable power transmission means. It would have been obvious to one of ordinary skill in the art to modify COHN in view of LEWIS with the clutch of HUNTER in order to selectively engage or disengage the motor.

3. Claim(s) 16-19, 40-42 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over COHN (US 6,010,298 A) in view of REDDING and further in view of TREMBLAY (US 5,636,399 A).

3.1. With respect to claim 16-19, and 40-42, COHN fails to teach a ramp flap having a wheel. TREMBLAY teaches hinged (46) ramp flap (44) having wheel (48), actuator bracket (for mounting the wheel), the wheel (48) dropping into a cutout (region of 78

between 94/96) in the ramp platform (12). It would have been obvious to one of ordinary skill in the art to modify COHN in view of REDDING with the wheeled flap arrangement of TREMBLAY to provide a smooth surface to facilitate transition of a wheeled vehicle between the sections.

4. Claim(s) 43-44 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over TREMBLAY.

4.1. With respect to claims 43-44, TREMBLAY teaches rotating a motor (108) shaft (motors are known to have shafts), rotating a drive sprocket (106) connected to a drive chain (104), deploying/stowing carriage (80), pivoting the ramp platform (77) about support bearings (82), of the carriage (80), rotating flap (44), having wheels (48) into cutout (region of 78 between brackets 94/96). TREMBLAY does not teach a drive belt and pulley. A drive belt and pulley are well-known equivalent driving members of the drive chain and sprocket, respectively, disclosed in TREMBLAY. It would have been obvious to one having ordinary skill in the art to employ alternative equivalent drive means, as suggested by TREMBLAY (Col. 7 Li 58-59), such as a belt and pulley, in order to achieve the predictable result of actuating the platform (77) and carriage (80).

III. Response to Applicant's Arguments

Applicant's arguments entered 1/16/07 have been fully considered.

1. Applicant argues that claims 1 and 21, as amended, are not rendered obvious by COHN in view of REDDING. This argument is persuasive. Upon further consideration however, a new ground for rejection, necessitated by the present amendment, is set forth above. Applicants

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remaining arguments with respect to claims 1 and 21 are rendered moot in light of this new ground for rejection

2. Applicant argues that claims 43 and 44 are not anticipated by TREMBLAY because TREMBLAY fails to teach a cutout. This argument is not persuasive. The region of 78 between brackets 94/96 properly defines a “cutout” within the broadest reasonable interpretation of that term.
3. Applicant argues that claims 43 and 44 are not anticipated by TREMBLAY because TREMBLAY fails to teach a bracket providing the force for rotating the ramp flap. This argument is not persuasive. Brackets 94/96 properly define brackets which provide a force to rotate the ramp flap within the broadest reasonable interpretation of that term.
4. Applicant argues that claims 3, 9, 25 and 33 are allowable because they contain subject matter previously indicated as allowable. Upon further consideration, these claims are rejected as indicated above. This action is made non-final in order to afford Applicant the opportunity to respond to these new grounds for rejection set forth hereinabove.

IV. Conclusion

1. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.

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3. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached at (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG

/C. N. G./

Examiner, Art Unit 3652

/Saúl J. Rodríguez/

Supervisory Patent Examiner, Art Unit 3652